



AF
Jfw

PATENT

Attorney Docket No. 08350.0676-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Frank G. HUGHES et al.) Group Art Unit: 3748
Application No.: 10/662,822) Examiner: Ching Chang
Filed: September 16, 2003) Confirmation No.: 1099
For: CYLINDER HEAD HAVING AN)
INTEGRALLY CAST ROCKER)
SHAFT PEDESTAL)

Attention: Mail Stop Appeal Brief-Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed November 1, 2006, and further to 37 C.F.R. § 41.37, Appellants present this brief and enclose herewith a check for the fee of \$500.00 required under 37 C.F.R. § 1.17(c).

This Appeal responds to the August 1, 2006, final rejection of claims 1, 7, 11, 13, 15, 16, 18, and 21-27.

If any additional fees are required or if the enclosed payment is insufficient, Appellants requests that the required fees be charged to Deposit Account No. 06-0916.

01/03/2007 JADDO1 00000011 10662822
01 FC:1402 500.00 0P

Table of Contents

Real Party In Interest	3
Related Appeals and Interferences.....	4
Status Of Claims	5
Status Of Amendments.....	6
Summary Of Claimed Subject Matter	7
Claim 1	7
Claim 13	7
Claim 21	8
Claim 24	8
Claim 27	9
Grounds of Rejection	10
Argument	11
The Rejection of Claims 21-27 Under 35 U.S.C. § 112, First Paragraph Should Be Reversed.....	11
The Rejection of Claims 1, 21, 24, and 27 Under 35 U.S.C. § 102(b) Should be Reversed.....	11
Claim 1	11
Claim 21	13
Claim 27	14
Claim 24	14
The Rejection of claims 21, 24, and 27 Under 35 U.S.C. § 103(a) Should be Reversed.....	15
Rejection of claims 7, 11, 13, 15, 16, 18, 22, 23, 25, and 26 under 35 U.S.C. § 103(a)	17
Claims 13, 15-16, and 18.....	17
Claims 7 and 11.....	18
Claims 22, 23, 25, and 26.....	20
Conclusion	21
Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)	1
Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)	1
Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x).....	1

Real Party In Interest

Perkins Engines Company is the real party in interest.

Related Appeals and Interferences

There are currently no other appeals or interferences, of which Appellant, Appellant's legal representative, or assignee are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status Of Claims

Claims 1, 7, 11, 13, 15, 16, 18, and 21-27 are pending in this case. Claims 1, 13, 21, 24, and 27 are independent. Claims 1, 7, 11, 13, 15, 16, 18, and 21-27 stand rejected. The rejections of these claims are at issue in this appeal.

Status Of Amendments

There have been no amendments filed after the final rejection of August 1, 2006.

Summary Of Claimed Subject Matter

Claim 1

The subject matter set forth in independent claim 1 relates to a cylinder head for an internal combustion engine. Paragraph [15]; Figs. 1-3.¹ The cylinder head may include a top deck and at least one integrally cast rocker shaft pedestal including a top surface, wherein the top deck is in a same plane as the top surface of the at least one rocker shaft pedestal. Paragraphs [15] and [16]; Figs. 1 and 3. In addition, the at least one rocker shaft pedestal may include a pair of opposed sidewalls adapted for correctly spacing adjacent rocker arms on each side of the pedestal. Paragraphs [16], [18], and [19]; Figs. 6 and 7.

Claim 13

The subject matter set forth in independent claim 13 relates to an internal combustion engine including a cylinder block and a cylinder head. Paragraph [23]; Fig. 1. The cylinder head may include a top deck and at least one integrally cast rocker shaft pedestal including a top surface, wherein the top deck is in a same plane as the top surface of the at least one rocker shaft pedestal. Paragraphs [15] and [16]; Figs. 1 and 3. The engine may also include a rocker shaft mounted on the at least one rocker shaft pedestal, the rocker shaft having a plurality of rocker arms mounted thereon. Paragraph [23]; Figs. 3-7. The rocker shaft may also include at least one flat formed on

¹ In this Summary of Claimed Subject Matter, references to the text of the specification and drawings are provided to identify exemplary disclosure of certain subject matter. Those identifications are not necessarily exhaustive and should not be construed as imparting any limitation upon the scope of the claims.

an underside of the shaft adapted for mating with a top of the at least one rocker shaft pedestal. Paragraph [23]; Figs. 6 and 7.

Claim 21

The subject matter set forth in independent claim 21 relates to a cylinder head for an internal combustion engine. Paragraph [15]; Figs. 1-3. The cylinder head may include a top deck and at least one integrally cast rocker shaft pedestal. Paragraph [15]; Figs. 1-3. The pedestal may include a substantially flat top surface adapted to abut a flat of a rocker shaft assembly. Paragraph [18]; Figs. 6 and 7. The pedestal may also include opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms. Paragraphs [16], [18], and [19]; Figs. 6 and 7.

Claim 24

The subject matter set forth in independent claim 24 relates to a cylinder head for an internal combustion engine. Paragraph 15; Figs. 1-3. The cylinder head may include a top deck and at least one rocker shaft pedestal. Paragraph [15]; Figs. 1-3. The pedestal may include a substantially flat top surface adapted to abut a flat of a rocker shaft assembly. Paragraph [18]; Figs. 6 and 7. The pedestal may also include opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms. Paragraphs [16], [18], and [19]; Figs. 6 and 7.

Claim 27

The subject matter set forth in independent claim 27 relates to a cylinder head for an internal combustion engine. Paragraph [15]; Figs. 1-3. The cylinder head may include a top deck and at least one integrally cast rocker shaft pedestal. Paragraph [15]; Figs. 1-3. The pedestal may include a substantially flat top surface adapted to abut a flat of a rocker shaft assembly. Paragraph [18]; Figs. 6 and 7. The pedestal may also include opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms. Paragraphs [16], [18], and [19]; Figs. 6 and 7. In addition, the top surface of the pedestal may be in the same plane as the top deck. Paragraphs [15] and [16]; Figs. 1 and 3.

Grounds of Rejection

- A. Claims 21-27 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.
- B. Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Wells et al. (US Patent No. 4,655,177).
- C. Claims 21, 24, and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Wells et al.
- D. Claims 7, 11, 13, 15, 16, 18, 22, 23, 25, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wells et al. in view of Nakamura (U.S. Patent No. 4,505,236).

Argument

The Rejection of Claims 21-27 Under 35 U.S.C. § 112, First Paragraph Should Be Reversed

The Examiner rejected claims 21-27 under 35 U.S.C. § 112, The Examiner asserts that the claim language “to abut side surfaces of adjacent rocker arms,” in claims 21, 24, and 27, is new matter. Applicants respectfully traverse this rejection. Applicants submit that support for this language may be found, among other places, in Figs. 6 and 7, element 27 and paragraph [25] in the specification, which states “the sidewalls 27 of the pedestal 26 function to space the rocker arms 19, 20 over the valve guide bores 4, 5.” Figs. 6 and 7 show sidewalls 27 abutting rocker arms 19 and 20. In view of this disclosure, Appellants respectfully submit that claims 21, 24, and 27 do not contain new matter and that, therefore, the rejection of claims 21-27 under § 112, first paragraph should be reversed.

The Rejection of Claims 1, 21, 24, and 27 Under 35 U.S.C. § 102(b) Should be Reversed

The rejection of claims 1, 21, 24, and 27 under 35 U.S.C. § 102(b) as being anticipated by Wells et al. should be reversed because Wells et al. does not disclose all of the claimed subject matter of claims 1, 21, 24, and 27.

Claim 1

Wells et al. does not disclose any combination having all the recited elements of claim 1, including, for example:

at least one integrally cast rocker shaft pedestal including a top surface, wherein [a] top deck is in a same plane as the top surface of the at least one rocker shaft pedestal; wherein the at least one rocker shaft pedestal includes a pair of

opposed sidewalls adapted for correctly spacing adjacent rocker arms on each side of the pedestal

as recited in claim 1. (Emphasis added.) The Examiner considers pedestal mounting 24 in Wells et al. to be an integrally cast rocker shaft pedestal. However, Wells et al. discloses that “[e]ach rocker arm assembly 10 includes a two part pedestal 34, which further includes a base 36 and a retainer clamp 38 . . .” Col. 5, lines 34-36; emphasis added. That is, pedestal mounting 24 is not itself a pedestal, but rather a mounting for two part pedestal 34. Thus, in actuality, Wells et al. teaches a pedestal mounting 24, a base 36, and a retainer clamp 38.

An object of the present disclosure is to, among other things, improve upon multi-piece rocker shaft pedestal configurations, such as that taught by Wells et al. Paragraph [02] of Appellants' specification discusses U.S. Patent No. 4,628,875 (the '875 patent), which discloses a two piece rocker shaft pedestal having a pedestal mount and separate, associated caps for clamping onto a rocker shaft. Appellants' specification offers some indication of the intended scope of the term “integrally cast” as used in the present application. For example, paragraph [24] of Appellants' specification explains that one advantage of an integrally cast rocker shaft pedestal is that it enables fewer components (e.g., fewer than the '875 patent) to be used in constructing the engine. Not only does Wells et al. disclose a separate pedestal mounting 24 and retainer clamp 38, Wells et al. also discloses a third component, i.e., base 36. Therefore, while the present disclosure mentions that an object of the disclosed system is to reduce the number of components of the engine by, for example, using **FEWER** components for mounting rocker shafts than the '875 patent, Wells et al. discloses a multi-piece rocker shaft pedestal assembly that uses **MORE** components

than that of the '875 patent. By any reasonable interpretation, Wells et al. discloses a multi-piece rocker shaft pedestal, not an integrally cast rocker shaft pedestal, as claimed.

In addition, even if the Examiner could justifiably consider the claimed integrally cast rocker shaft pedestal to read on pedestal mounting 24 of Wells et al. -- a notion which Applicants dispute -- pedestal mounting 24 does not include "a pair of opposed sidewalls adapted for correctly spacing adjacent rocker arms on each side of the pedestal," as recited in claim 1. Rather, the rocker arms in Wells et al. are spaced by two-part pedestal 34 (i.e., base 36 and retainer clamp 38), and NOT by pedestal mounting 24. See Figs. 1 and 3.

Contrary to the Examiner's allegations (See Office Action at 7), there is no disclosure or suggestion that pedestal mounting 24 has the capability of "correctly spacing adjacent rocker arms on each side of the pedestal," as recited in claim 1. The Examiner's allegation to the contrary amounts to pure speculation that some hypothetical rocker shaft assembly could be mounted on pedestal mounting 24 such that rocker arms would be correctly spaced. Such speculation is improper, and thus the § 102(b) rejection of claim 1 should be reversed.

Claim 21

For at least the same reasons discussed above with regard to claim 1, Wells et al. also fails to disclose any combination having all the recited elements of claim 21, for example:

a cylinder head . . . comprising . . . at least one integrally cast rocker shaft pedestal, the pedestal comprising . . . opposed outer side walls having substantially flat portions

adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms
as recited in claim 21 (Emphasis added).

Claim 27

For at least the same reasons discussed above with regard to claim 1, Wells et al. also fails to disclose

a cylinder head . . . comprising . . . at least one integrally cast rocker shaft pedestal, the pedestal comprising . . . a substantially flat top surface adapted to abut a flat of a rocker shaft assembly; and opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms, wherein the top surface of the pedestal is in the same plane as the top deck.

as recited in claim 27. (Emphasis added.)

Claim 24

In addition, Wells et al. does not disclose any combination having all the recited elements of claim 24, including, for example:

a cylinder head . . . comprising . . . at least one rocker shaft pedestal, the pedestal comprising . . . a substantially flat top surface adapted to abut a flat of a rocker shaft assembly; and opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms

as recited in claim 24. (Emphasis added.) The Examiner alleges that pedestal mounting 24 meets the limitation of a rocker shaft pedestal having a "substantially flat top surface," as required by claim 24. Office Action at 3. However, even if pedestal mounting 24 could be construed as including a substantially flat top surface (a point which Appellants do not necessarily concede), pedestal mounting 24 does not meet all

the other limitations of the claimed rocker shaft pedestal. For example, for reasons similar to those discussed above with regard to claim 1, pedestal mounting 24 does not include “opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms,” as required by claim 24.

For at least the foregoing reasons, Wells et al. fails to disclose all the recitations of claims 1, 21, 24, and 27. Accordingly, the rejection of claims 1, 21, 24, and 27 under 35 U.S.C. § 102(b) should be reversed.

The Rejection of claims 21, 24, and 27 Under 35 U.S.C. § 103(a) Should be Reversed

The Examiner’s alternative rejection of claims 21, 24, and 27 under 35 U.S.C. 103(a) as being unpatentable over Wells et al. should be reversed because no prima facie case has been established with respect to those claims. To establish prima facie obviousness under 35 U.S.C. § 103(a), the Examiner must show first that the prior art references teach or suggest all the claim limitations. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Second, the Examiner must show that there is some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references in a manner resulting in the claimed invention. In re Rouffet, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). Third, the Examiner must show that there is a reasonable expectation of success to modify or combine. In re Dow Chem. Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Moreover, “[b]oth the suggestion and the reasonable expectation of success must be found in the prior art reference, not in the Applicant’s disclosure.” In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

As discussed above, Wells et al. does not disclose or suggest all the recitations of claims 21, 24, and 27. Therefore, at least one essential criteria for establishing a *prima facie* case of obviousness has not been met with respect to those claims. For at least this reason, the rejection of claims 21, 24, and 27 under § 103(a) should be withdrawn.

In addition, despite the Examiner's allegation that

it would have been obvious . . . to have utilized the said flat portions of the pedestal to abut side surfaces of the adjacent rocker arms, since the use would provide a more compact engine, with properly aligned rocker arms

(Office Action at 4), there is no suggestion, motivation, or teaching, in Wells et al. or any other source, to modify Wells et al. in the manner proposed by the Examiner.

There is no evidence that suggests mounting a rocker shaft directly to pedestal mounting 24 would be possible without rendering the device unfit for its intended purpose and/or changing the principle of operation. The rocker shaft assembly disclosed in Wells et al. is designed to operate with the rocker shaft assembly disclosed therein attached to pedestal mounting 24. To utilize a different rocker shaft assembly with pedestal mounting 24 would render the engine unfit for its intended purpose (i.e., the components would not fit/work together) and/or change the principle of operation. For example, in order to mount a rocker shaft assembly directly to pedestal mounting 24, a flat-bottomed rocker shaft would be needed. Further, such a configuration would position the rocker shaft substantially lower than the disclosed assembly which includes base 36 to raise it up of the cylinder head. (See Fig. 3) This lower positioning would not provide necessary clearances between the rocker shaft assembly and the cylinder head and would significantly change the geometric relationship between the rocker

arms and the valves which are actuated by the rocker arms. As noted in MPEP 2143.01, such modifications are impermissible.

For at least the foregoing reasons, one of ordinary skill in the art would not have found it obvious to modify Wells et al. in the manner suggested by the Examiner. Accordingly, the rejection of claims 21, 24, and 27 under 35 U.S.C. § 103(a) should also be reversed.

Rejection of claims 7, 11, 13, 15, 16, 18, 22, 23, 25, and 26 under 35 U.S.C. § 103(a)

The rejection of claims 7, 11, 13, 15, 16, 18, 22, 23, 25, and 26 under 35 U.S.C. 103(a) as being unpatentable over Wells et al. in view of Nakamura should be reversed because no *prima facie* case has been established with respect to those claims.

Claims 13, 15-16, and 18

As discussed above, Wells et al. does not disclose or suggest all the claimed subject matter of claims 1, 21, 24, and 27. Further, the Examiner acknowledges that Wells fails to disclose that the rocker shaft includes “at least one flat formed on an underside of the shaft adapted for mating with a top of the at least one rocker shaft pedestal,” as recited in claim 13. Office Action at 4. The Examiner, however, pointing to Fig. 7, elements 98, 128, and 130, alleges that Nakamura discloses such a feature. Id. The Examiner further alleges that

it would have been obvious to . . . have utilized the flat mating surface on the rocker shaft and the spacing steps on the opposed side walls of the rocker shaft supporting member as taught by Nakamura, to modify the mating geometric relations between the rocker shaft and the rocker shaft pedestal in the Wells device, since the use thereof would provide a more compact engine with a proper alignment on the rocker arms.

Office Action at 4-5. However, Nakamura does not cure the above-noted deficiencies of Wells et al. For example, as noted above, there is no disclosure or suggestion in Wells et al., Nakamura, or any other source of an integrally cast rocker shaft pedestal.

As also discussed above, modifying the geometric relations between the rocker shaft and the rocker shaft pedestal in Wells et al. by, for example, mounting a flat-bottomed shaft without base 36, as suggested by the Examiner, would render Wells et al. unfit for its intended purpose or change the principle of operation.

Moreover, Appellants respectfully submit that it would NOT have been obvious to make such a combination because the configurations of Nakamura and Wells et al. are fundamentally different. For example, Wells et al. discloses a configuration wherein each pedestal mounting 24 is straddled by two rocker arms (See Figs. 1 and 4), whereas Nakamura discloses rocker arms (130) each straddled by two supporting member leg portions (102a/102b, 104a/104b), rather than each supporting member leg portion straddled by two rocker arms.

Claims 7 and 11

Nakamura is cited only for its alleged teachings of a rocker shaft having at least one flat formed on an underside of the shaft adapted for mating with a top of the at least one rocker shaft pedestal and for spacing steps on opposing sidewalls of an engine rocker shaft support member. Office Action at 4-5. Thus, Nakamura does not cure the above noted deficiencies of Wells et al., namely the lack of an integrally cast rocker shaft pedestal as claimed in claim 1.

With further regard to claims 7 and 11, the Examiner acknowledges that Wells et al. does not disclose "each sidewall having a spacing step adjacent a top of the

pedestal, which spacing steps are adapted for correctly spacing adjacent rocker arms on each side of the pedestal,” as recited in claim 7 or that “each sidewall includes a second step formed beneath the spacing step,” as recited in claim 11. Office Action at

5. The Examiner alleges that Nakamura teaches

that it is conventional in the engine rocker shaft support art, to utilize a rocker shaft (128) [having] at least one flat formed on an underside of the shaft adapted for mating with a top of the at least one rocker shaft supporting member (98), in which the at least one rocker shaft supporting member includes a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the supporting member, which spacing steps are adapted for correctly spacing adjacent rocker arms (130) on each side of the supporting member, in which each sidewall includes a second step formed beneath the spacing step (See Fig. 7).

Id. The Examiner asserts that including these alleged features of Nakamura would have been obvious

to modify the mating geometric relations between the rocker shaft and the rocker shaft pedestal, to include a spacing step and a second step on each opposed sidewalls in the Wells device, since the use thereof would provide a more compact engine with a proper alignment on the rocker arms.

Office Action at 5-6. However, contrary to the Examiner’s allegation, Nakamura does not disclose at least one rocker shaft pedestal including “a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the pedestal, which spacing steps are adapted for correctly spacing adjacent rocker arms on each side of the pedestal,” as recited in claim 7. Further, even if Nakamura did disclose all the features lacking in Wells et al. --a notion which applicants dispute--, the Office Action does not provide a proper motivation for combining the teachings of Nakamura with those of Wells et al., as neither Nakamura, nor Wells et al., or any other cited prior art discloses or suggests combining these references in the manner suggested by the

Examiner. As noted above, Wells et al. discloses a configuration wherein each pedestal mounting 24 is straddled by two rocker arms (See Figs. 1 and 4), whereas Nakamura discloses rocker arms (130) each straddled by two supporting member leg portions (102a/102b, 104a/104b), rather than each supporting member leg portion straddled by two rocker arms. Thus, the configurations are fundamentally different. Appellants respectfully submit that one of ordinary skill in the art would not have found it obvious to modify Wells et al. with the features of a fundamentally different device such as that taught by Nakamura.

Because the applied references do not disclose or suggest all the limitations of claims 7 and 11, and because there is no suggestion, motivation, or teaching to modify Wells et al. in the manner suggested by the Examiner, the essential criteria for establishing a *prima facie* case of obviousness is lacking. For at least the foregoing reasons, the § 103(a) rejection of claims 7 and 11 should be withdrawn.

Claims 22, 23, 25, and 26

Claims 22, 23, 25, and 26, contain similar limitations to those in claims 7 and 11, and thus, in applying Nakamura and Wells et al. to claims 22, 23, 25, and 26, the Examiner proffered substantially similar rational as in the rejection of claims 7 and 11. Applicants respectfully submit that the application of Nakamura and Wells et al. is flawed and should, thus, be reversed for the same reasons discussed above with regard to claims 7 and 11.

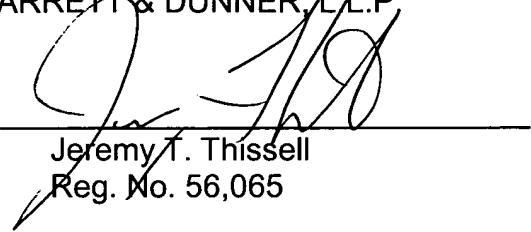
Conclusion

For the reasons given above, pending claims 1, 7, 11, 13, 15, 16, 18, and 21-27 are allowable and reversal of the Examiner's rejection is respectfully requested.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, LLP

By: 

Jeremy T. Thissell
Reg. No. 56,065

Dated: December 29, 2006

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

1. A cylinder head for an internal combustion engine, the cylinder head comprising:
 - a top deck; and
 - at least one integrally cast rocker shaft pedestal including a top surface, wherein the top deck is in a same plane as the top surface of the at least one rocker shaft pedestal;
 - wherein the at least one rocker shaft pedestal includes a pair of opposed sidewalls adapted for correctly spacing adjacent rocker arms on each side of the pedestal.
- 2-6. (Canceled)
7. A cylinder head as claimed in Claim 1, in which the at least one rocker shaft pedestal includes a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the pedestal, which spacing steps are adapted for correctly spacing adjacent rocker arms on each side of the pedestal.
- 8-10. (Canceled)
11. A cylinder head as claimed in Claim 7, in which each sidewall includes a second step formed beneath the spacing step.

12. (Canceled)

13. An internal combustion engine comprising:

a cylinder block;

a cylinder head having a top deck and at least one integrally cast rocker shaft pedestal including a top surface, wherein the top deck is in a same plane as the top surface of the at least one rocker shaft pedestal; and

a rocker shaft mounted on the at least one rocker shaft pedestal, the rocker shaft having a plurality of rocker arms mounted thereon,

wherein the rocker shaft includes at least one flat formed on an underside of the shaft adapted for mating with a top of the at least one rocker shaft pedestal.

14. (Canceled)

15. An internal combustion engine as claimed in Claim 13 in which the at least one rocker shaft pedestal includes a pair of opposed sidewalls adapted for correctly spacing adjacent rocker arms on each side of the pedestal.

16. An internal combustion engine as claimed in Claim 13, in which the at least one rocker shaft pedestal includes a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the pedestal, which spacing steps are adapted for correctly spacing adjacent rocker arms on each side of the pedestal.

17. (Canceled)

18. An internal combustion engine cylinder head as claimed in Claim 16, in which each sidewall includes a second step formed beneath the spacing step.

19. (Canceled)

20. (Canceled)

21. A cylinder head for an internal combustion engine, the cylinder head comprising a top deck and at least one integrally cast rocker shaft pedestal, the pedestal comprising:

 a substantially flat top surface adapted to abut a flat of a rocker shaft assembly; and

 opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms.

22. The cylinder head of claim 21, wherein the opposed outer side walls each include a spacing step adjacent a top of the pedestal.

23. The cylinder head of claim 22, wherein the opposed outer side walls each include a second step formed beneath the spacing step.

24. A cylinder head for an internal combustion engine, the cylinder head comprising a top deck and at least one rocker shaft pedestal, the pedestal comprising:
a substantially flat top surface adapted to abut a flat of a rocker shaft assembly;
and
opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms.

25. The cylinder head of claim 24, wherein the opposed outer side walls each include a spacing step adjacent a top of the pedestal.

26. The cylinder head of claim 25, wherein the opposed outer side walls each include a second step formed beneath the spacing step.

27. A cylinder head for an internal combustion engine, the cylinder head comprising a top deck and at least one integrally cast rocker shaft pedestal, the pedestal comprising:
a substantially flat top surface adapted to abut a flat of a rocker shaft assembly;
and
opposed outer side walls having substantially flat portions adapted to abut side surfaces of adjacent rocker arms of the rocker shaft assembly to position the rocker arms,

wherein the top surface of the pedestal is in the same plane as the top deck.

Application No.: 10/662,822
Attorney Docket No.: 08350.0676-00000

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

There is no evidence being cited being relied upon by Appellant in the appeal.

Application No.: 10/662,822
Attorney Docket No.: 08350.0676-00000

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

There are no related proceeding decisions.